

Title (en)
Data storage devices

Title (de)
Datenspeichervorrichtungen

Title (fr)
Dispositif de stockage de données

Publication
EP 1471516 A3 20060426 (EN)

Application
EP 04251525 A 20040317

Priority
US 42074603 A 20030423

Abstract (en)
[origin: EP1471516A2] In an ultra-high-density data storage device that includes at least one energy beam emitter (240) and a data storage medium (210) that itself includes an organic material (200), the organic material may include one or more Langmuir-Blodgett layers and may include a conductive polymer. Localized presence or absence of localized disorder in the Langmuir-Blodgett layers may be used to detect data bits formed in the data storage medium. The present or absence of one-dimensional conductivity in the organic material may also be used to read data bits formed in the data storage medium.
[origin: EP1471516A2] The data storage device (20) includes a pair of electrodes (220,230) and a storage layer (210) containing organic material (200) with Langmuir-Blodgett film between the two electrodes and an electron emitter (240) arranged closer to the storage layer. An independent claim is also included for data storage and retrieval method.

IPC 8 full level
G11B 9/04 (2006.01); **G11B 7/24** (2006.01); **G11B 7/244** (2006.01); **G11B 7/245** (2006.01); **G11B 9/00** (2006.01); **G11B 9/10** (2006.01); **G11B 11/00** (2006.01); **G11B 11/12** (2006.01)

CPC (source: EP KR US)
B82Y 10/00 (2013.01 - EP US); **G11B 7/244** (2013.01 - EP US); **G11B 7/245** (2013.01 - EP US); **G11B 9/10** (2013.01 - EP KR US); **G11B 9/14** (2013.01 - EP US); **G11B 9/1409** (2013.01 - EP US); **G11B 9/149** (2013.01 - EP US)

Citation (search report)

- [XYA] EP 0714093 A2 19960529 - DAINIPPON PRINTING CO LTD [JP]
- [Y] EP 0871165 A2 19981014 - CANON KK [JP]
- [YA] US 5264876 A 19931123 - KAWADE HISAAKI [JP], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1471516 A2 20041027; **EP 1471516 A3 20060426**; CN 1571047 A 20050126; JP 2004327027 A 20041118; KR 20040092452 A 20041103; TW 200423122 A 20041101; US 2004213127 A1 20041028; US 7057997 B2 20060606

DOCDB simple family (application)
EP 04251525 A 20040317; CN 200310122070 A 20031223; JP 2004123808 A 20040420; KR 20040027704 A 20040422; TW 92129939 A 20031028; US 42074603 A 20030423